TVlogic

Multi Format LCD Monitor

User's Manual

LVM-070W

CE

Contents

Warning

- **Always use set voltage.**
  - DC 12V 1.5A

- **If liquid is spilled on or impacts this product, please disconnect the product immediately and seek professional help before continued use.**

- **Keep unit disconnected during extended periods of disuse.**

- **Keep unit in a well-ventilated place to prevent overheating.**

- **Do not install the product near any heat-generating equipment. Also, keep the product out of direct sunlight or dusty areas.**

- **Only clean the product with a noncommercial, mild and neutral detergent.**

- **When transporting the product, make use of its original packaging for safer carriage.**

Features

LVM Series units have the following features:

Compatible with varied SDI signals

The product is compatible with varied SDI Signals - 480i, 576i, 720p, 1080i, 1080p, 1080psF (SDI A, B 2 channel compatible)

Compatible with varied analog signals

The product is compatible with varied analog signals - Composite, S-Video, Component, RGB, etc.

All-in-one system

Slim and all-in-one type monitor that requires no additional accessories, which provides optimized space utilization.

Wide Screen compatible

Wide Screen for easier monitoring.

DC compatible

The product may be powered by normal AC source, but also 12V DC source.-

Remote control function

Remote-controlled simply with cable connection without additional peripheral equipment attached to unit.

VGA function built-in

No other product can use common VGA Monitor.

In addition, the product is compatible with Wide View Angle, Relocked Active Through OUT (SDI), VESA Mounting Standard, 300:1 contrast ratio, 450cd brightness, user interface and rack mountable among others.

Name & Function of Each Part

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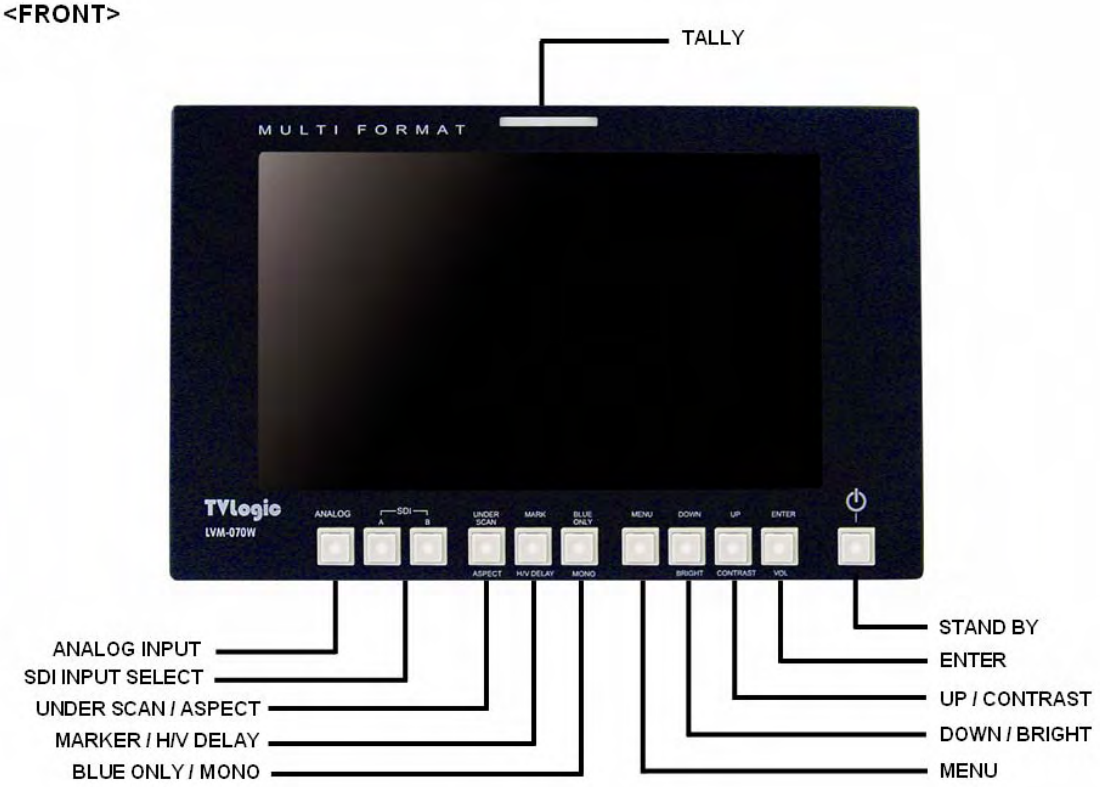
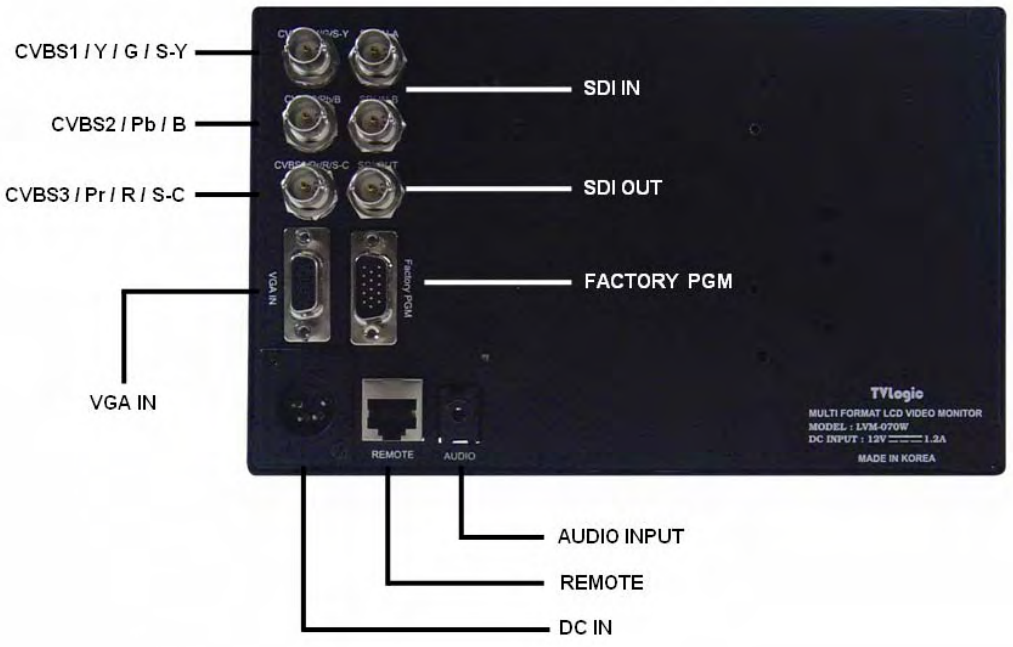


<REAR>



<FRONT>

- **ANALOG INPUT**

Used to select desired ANALOG INPUT. A Sub Menu for each analog input connected can be selected.

- **SDI INPUT SELECT**

Used to select SDI INPUT A or B.

- **UNDER SCAN**

Used to transfer from OVER SCAN mode to UNDER SCAN mode. (Compatible up to SD 1:1 SCAN mode.)

- **ASPECT**

Used to change the monitor ratio on SD signal mode to 16:9.

- **MARKER**

Used to show MARKER on the screen. The type of marker at work may be selected on the main menu.

- **H/V DELAY**

Used to observe horizontal sync and vertical sync simultaneously.

- **BLUE ONLY / MONO**

You may remove R(red) and G(green) from the input signal and play the screen only with B(blue) signal. Button may be pressed twice to change the screen to MONO mode. (This mode uses only luminance value.)

- **CHROMA/PHASE**

Used to change the CHROMINANCE and PHASE values. Pressing the button once will activate the CHROMA mode, pressing the button twice activates PHASE mode.
(PHASE may be used only with COMPOSITE and S-VIDEO on ANALOG mode.)

- **MENU**

Used when OSD menu is activated.

- **DOWN/BRIGHT**

Used to navigate menu during OSD menu activation. It may also be used to control the BRIGHT value when the OSD menu is not active.

- **UP/CONTRAST**

Used to navigate the menu during OSD menu activation. It may also be used to control the CONTRAST value when the OSD menu is not active.

- **ENTER**

Used to confirm a chosen value (or mode) during OSD menu activation or inactivation.

- **STANDBY**

Indicates power supply connection and current setting. The lamp is RED when unit is connected to power supply and in standby mode and GREEN during system operation. In case of sudden loss of power unit retains last setting.

- **TALLY**

LED indicating monitors current status.

<REAR>

- **REMOTE (RJ-45)**

Connection for remote control of monitor.

- **VGA IN / FACTORY PGM**

Input connection for VGA mode and input connector for FACTORY PGM allowing for firmware updates.

- **CVBS1/Y/G/S-Y (BNC)**

Signal input terminal used for COMPOSITE1, S-VIDEO Y, COMPONENT Y, RGB G signals.

- **CVSBS2/Pb/B (BNC)**

Signal input terminal used for COMPOSITE2, RGB B, COMPONENT Pb signals.

- **CVSBS3/Pr/R/S-C (BNC)**

Signal input terminal used for COMPOSITE3, S-VIDEO C, COMPONENT Pr, RGB R signals.

- **SDI-IN (BNC)**

SDI signal input terminals that provide A and B inputs.

- **SDI-OUT (BNC)**

SDI signal output terminal used for SDI output.

- **DC 12V 1.5A IN (XLR, Male)**

Used to supply DC power; 12V

Information

Input VIDEO connection method

Connector	Composite	Component		S-Video
1	CVBS1	Y	G	Y
2	CVBS2	Pb	B	No Con.
3	CVBS3	Pr	R	C

Warning!!

Before using this unit make certain to connect the power supply before connecting a signal to any of the inputs. The unit may not function properly if a signal is connected before the power supply is connected. As an example: the unit will not function properly when using an RCA-to-BNC (BNC-to-RCA) connection if the signal is connected to the input before the unit is connected to the power supply.

Information

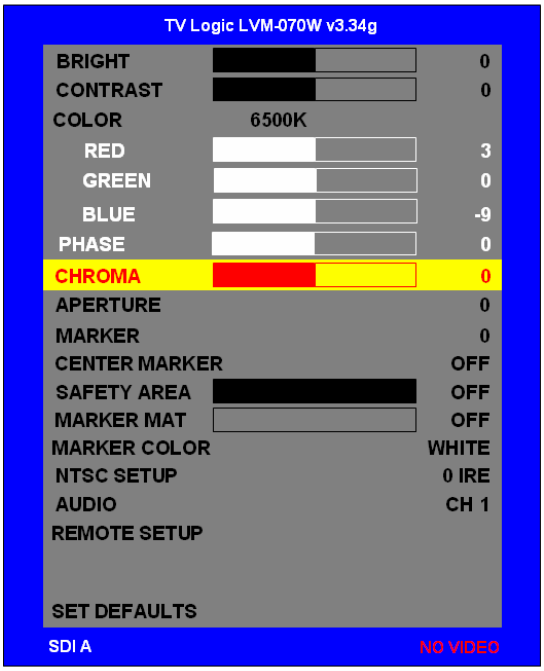
The UNDER SCAN and the MARKER button are including the ASPECT and H/V DELAY function. When using, the UNDER SCAN and MARKER function pay attention become first of all.

Menu Organization & Adjustment

The product may be controlled and set system-wide through an OSD.

1) Menu Organization

Below is the organization of the product's menu.



2) Menu Control

You may control various functions using MENU, UP/DOWN and ENTER buttons on the bottom-front of the monitor.

3) Menu Control Sequence

Menu control sequence follows the order below

1. Press MENU button to bring up the OSD menu.

2. Highlight the desired item with the UP/DOWN button.

3. Press ENTER to select an item, make sure the item turns red and then change the set value.

4. Select the desired new value with the UP/DOWN button.

5. Press ENTER to save the new value (verified by highlighted field returning to default black color).

6. Press MENU once again to remove OSD menu from the screen.

Menu Contents

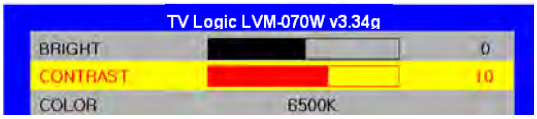
Below is the description of each function of the menu.

- **BRIGHT**

This item controls the degree of brightness between MAX(50) and MIN (-50) range.

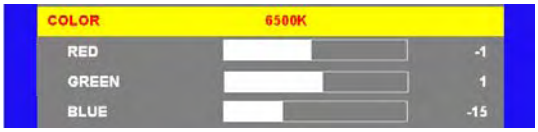
- **CONTRAST**

This item controls the contrast ratio between MAX(50) and MIN(-50).



- **COLOR**

This item controls COLOR TEMP. and is basically compatible with 5000K, 5600K, 6500K, 9300K and USER modes. On USER mode, the user may select between R, G and B values.



- **PHASE**

This item controls PHASE value (Tone) between MAX(50) and MIN(-50). However, it is only available on COMPOSITE and S-VIDEO in ANALOG mode.

- **CHROMA**

This item controls saturation between MAX (50) and MIN(-50).

- **APERTURE**

This item controls the picture sharpness. Sharpness select MIN(-4) and MAX(15).

- **MARKER**

This selects the marker type when the MARKER is displayed on the screen. MARKER may only be activated by pressing the MARKER button on the front of the monitor.

Compatible MARKER types are as follows:

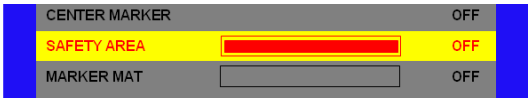
MODE	MARKER CLASS
HD **SD 16:9**	4:3, 4:3 ON AIR 15:9,14:9,13:9 1.85:1, 2.35:1 1.85:1&4:3
SD 4:3	16:9

- **CENTER MARKER**

This item displays the CENTER MARKER on the screen. This function operates only after activating the MARKER function by pressing the MARKER button on the front of the monitor.

- **SAFETY AREA**

This item controls the size of the SAFETY AREA between 80%, 88%, 90% and 93%.



- **MARKER MAT**

This item darkens the area on the outside of MARKER setting area. The degree of darkness is between OFF (0) and (7). The higher the number, the darker MARKER border becomes.

- **MARKER COLOR**

This item controls the color when MARKER is generated. Settable colors are white, gray, black, red, green and blue.

- **NTSC SETUP**

This item sets IRE value in NTSC mode between 0 IRE and 7.5 IRE.

- **REMOTE SETUP**

This product is compatible with exterior REMOTE CONTROL. The user may access the remote setup menu from here.

- **AUDIO**

This item sets embedded audio channel selects Ch1~Ch16 and OFF.

- **SET DEFAULTS**

You can use SET DEFAULTS menu to initialize the values of BRIGHT, CONTRAST, PHASE and CHROMA of the monitor.

Other Functions

1) ANALOG Mode Usage

This product is capable of processing all input signals usable in ANALOG mode. The ANALOG input settings are as follows:

(1) Press ANALOG button on the front of the product and activate the menu below.

(2) Highlight the value you desire by using the UP/DOWN button and press the MENU button to confirm your selection. From this point the OSD menu operates identically to the MENU operations discussed above.

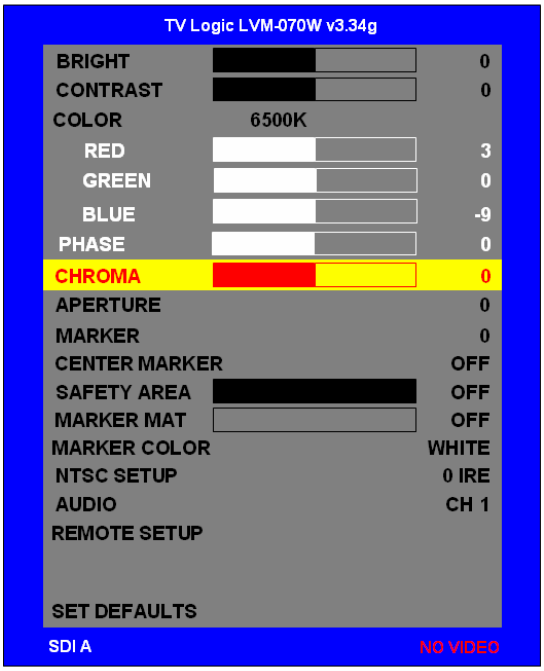
Caution!!

When using ANALOG mode, always check the input method and modify the setting as needed for optimized output results.

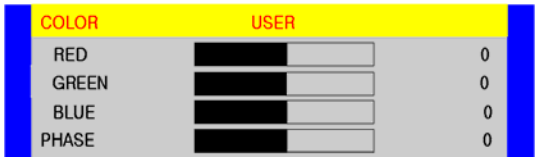
2) COLOR USER Mode Usage

This product provides USER mode where the user can set the color wanted. USER MODE may be used in the following manner.

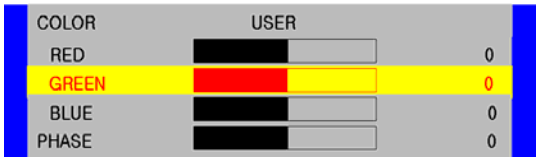
(1) Press MENU to call up the OSD menu.



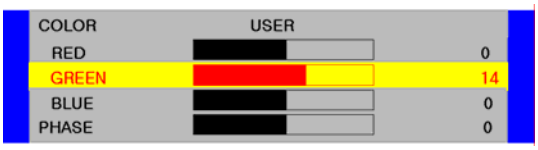
(2) Select COLOR on MENU and choose USER among selectable values.



(3) Press MENU and store USER mode, select one of RED, GREEN and BLUE with DOWN button and press ENTER.



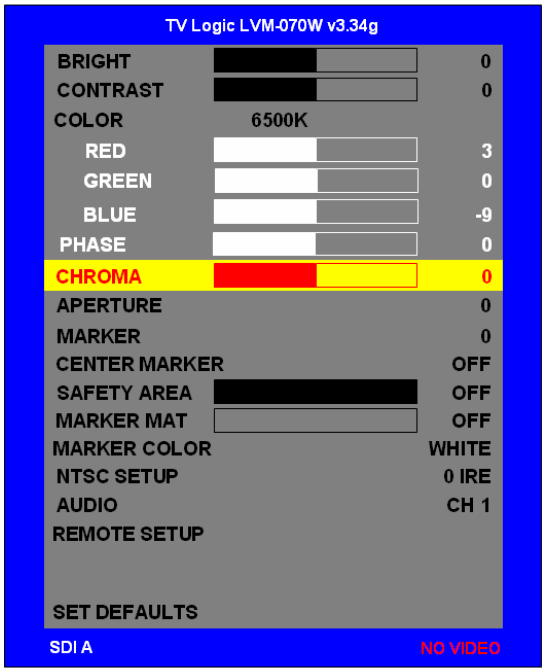
(4) After the selected value turns red, set the value with the UP/DOWN button, press MENU again to store the selected value. The value should be within the range MAX(50) and MIN(-50).



3) REMOTE Mode Usage

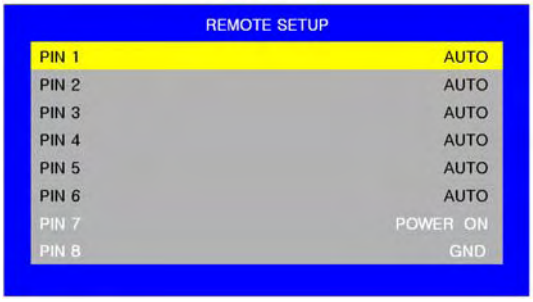
This product provides a REMOTE CONTROL mode. The user may connect the RJ-45 jack to the REMOTE terminal on the rear of the unit and designate a function for each pin. The method for designating functions for pins is as follows:

(1) Press MENU to call up the OSD menu.



(2) Select REMOTE SETUP on MENU.

(3) The REMOTE SETUP menu will be activated.

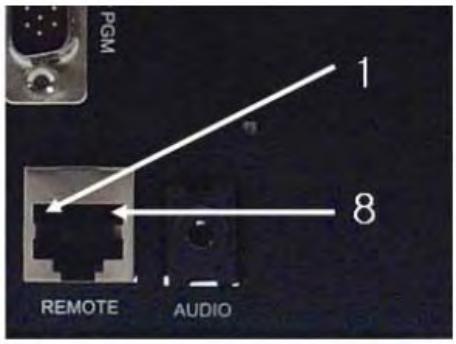


The user may designate functions for PIN1 ~ PIN 6. PIN7 is for POWER ON/OFF use only. The selectable functions are as follows:

Menu Classification	Settable Values
PIN 1~6	NONE, ANALOG CHANNEL DIGITAL A,B CHANNEL TALLY R,G , BLUE ONLY SD 1:1 SCAN, UNDER SCAN ASPECT, H/V DELAY 16:9,15:9,14:9,13:9 MARKER 4:3, 4:3 ON AIR MARKER 1.85:1, 2.35:1 MARKER 1.85:1&4:3 MARKER CENTER MARKER SAFETY AREA 80%, 88% SAFETY AREA 90%, 93%

(4) On the pin to be used, set the function you desire with the ENTER button and UP/DOWN button. The method of setting the values is the same as that for the MENU function discussed earlier.

Pin number designation is depicted below. **Pin #8 should be left as the RJ-45 GND**.



4) SD 1:1 SCAN Mode

Widescreen models provide not only an UNDER SCAN mode but also an SD 1:1 SCAN mode. These modes may be selected as follows:

(1) Transfer to UNDER SCAN by pressing the UNDER SCAN button on the front of the monitor.

(2) Press the UNDER SCAN button again after the mode is shifted to UNDER SCAN mode to transfer to SD 1:1 SCAN mode.

5) COMPUTER Mode

This product supports VGA mode. If user wants this model to use Computer monitor, select this mode. This mode usage is as the following.

(1) Press the ANALOG button to bring up the OSD menu. Select DVI-ANA and press the MENU button.

(2) This mode's OSD MENU is different than the other OSD MENU.

This mode is controlled by DOT PHASE, H SHIFT and V SHIFT. The function control methods are described below.

- **DOT PHASE**

Use this item for tuning the screen. Controls DOT PHASE value between MAX(31) and MIN(0).

- **H SHIFT**

Use this item to move the entire screen to the left or right. Controls H SHIFT value between MAX(63) and MIN(-64).

- **V SHIFT**

Use this item to move the entire screen up or down . Controls V SHIFT value between MAX(7) and MIN(-8).

(3) COMPUTER mode is support below resolution and frequency.

Resolution	Frequency
640 X 480	60Hz, 75Hz, 85Hz
800 X 600	60Hz, 72Hz, 75Hz, 85Hz
1024 X 768	60Hz,70Hz,75Hz,85Hz
1280 X 768	60Hz
1280 X 1024	60Hz (Sub-sampling mode)
720 X 400	70Hz

Product Specification

Below is the product specification

Specification						
		LVM-070W	LVM-084	LVM-170W	LVM-230W	LVM-240W
Input	1 x D-SUB	VGA IN				DVI IN
	3 x BNC	Analog Input				
	2 x BNC	SDI 2 Channel Input				
Output	1 x BNC	Selected SDI Channel (Active Through Out)				
Input Signal	Analog	Composit / S-Video / Component / RGB				
	HD-SDI	1.485Gpbs				
	SD-SDI	270Mbps				
	VGA	640 X 480 / 800 X 600 / 1024 X 768 / 1280 X 768 / 1280 X 1024* / 720 X 400				**
Analog Input Spec	Composite	1.0Vpp (With Sync)				
	S-Video	1.0Vpp(Y with Sync), 0.286Vpp(C)				
	Component	1.0Vpp(Y with Sync), 0.7Vpp(Pb,Pr)				
	RGB	1.0Vpp(G with Sync), 0.7Vpp(B,R)				
SDI Input Signal Formats	SMPTE-274M	1080i (60 / 59.94 / 50)				
		1080p (30 / 29.97 / 25 / 24 / 24sF / 23.98 / 23.98sF)				
	SMPTE-296M	720p (60 / 59.94 / 50)				
	SMPTE-260M	1035i (60 / 59.94)				
	SMPTE-125M	480i (59.94)				
	ITU-R BT.656	576i (50)				
LCD	Size	7.0"	8.4"	17.1"	23.0"	24.0"
	Resolution	800 x 480 (15:9)	1024 x 768 (4:3)	1280 x 768 (15:9)	1366 x 768 (16:9)	1920 x 1200 (16:10)
	Dot Pitch	0.0635 x 0.1905 mm	0.165 mm	0.29 mm	0.372 mm	0.27 mm
	Color	262K,18bit	16.7M(true), 24bit	16.7M(true), 24bit	16.7M(true), 24bit	16.7M(true), 24bit
	Viewing Angle	H: 130 degrees	H: 170 degrees	H: 170 degrees	H: 170 degrees	H: 178 degrees
		V: 100 degrees	V: 170 degrees	V: 170 degrees	V: 170 degrees	V: 178 degrees
	Luma of White	450cd (center)	400cd (center)	450cd (center)	500cd (center)	500cd (center)
	Contrast	300:1	400:1	400:1	800:1	1000:1
	Display Area	152 x 91 mm	170 x 128 mm	372 x 223 mm	508 x 285 mm	518 x 324 mm
Power		12V DC	12V DC	AC 100 - 240V / 12V DC	AC 100 - 240V (50/60Hz)	AC 100 - 240V / 24V DC
Power Consumtion (Approx.)		16Watts	16Watts	45Watts(AC) 36Watts(DC)	85Watts	90Watts(AC) 72Watts(DC)
Operating Temperature		0°C to 40°C (32°F to 104°F)				
Storage Temperature		-10°C to +50°C (14°F to 122°F)				
Main Body (W x H x D)		215×133×50	215×177×59	407×309×80.8	550×355×96.8	550×388.4×96.8
Main Body (with stand)		-	-	415×329.5×120	558×376×150	558×413.4×150
Weight		1. 4Kg	2.1Kg	6.8Kg	10.2Kg	13 Kg
Accessory		DC Power Adapter	DC Power Adapter	AC Power cord	AC Power cord	AC Power cord
Option		V-mount 19 " Rack Mountable Kit (3U) (Dual Monitor)	V-mount 19" Rack Mountable Kit (4U) (Dual Monitor) Soft Bag(Hood)	Carrying Case V-mount Hood / Handle 19" Rack Mountable Kit (7U)	Carrying Case	Carrying Case

*VGA 1280 X 1024 mode is sub-sampling mode.

Product Lineup

LVM - 070W
7 inch Multi Format Monitor

- LCD RESOLUTION **800 X 480 (16:9)**
- COLOR **262K , 18 bit**
- CONTRAST **300 : 1**
- WEIGHT **1.4 Kg**

- LCD RESOLUTION **1024 X 768 (4:3)**
- COLOR **16.7M, 24 bit**
- CONTRAST **400 : 1**
- WEIGHT **2.1 Kg**

LVM - 084
8.4 inch Multi Format Monitor

LVM - 170W
17.1 inch Multi Format Monitor

- LCD RESOLUTION **1280 X 768 (15:9)**
- COLOR **16.7M, 24 bit**
- CONTRAST **400 : 1**
- WEIGHT **8.3 Kg**

- LCD RESOLUTION **1366 X 768 (16:9) / 1920 X 1200 (16:10)**
- COLOR **16.7M, 24 bit**
- CONTRAST **800 : 1 / 1000:1**
- WEIGHT **10.2 Kg / 13 Kg**

LVM - 230W / LVM - 240W
23 / 24 inch Multi Format Monitor

Optional Accessories

Rack-Mountable Kit 7" 8.4" 17"

V-mount 7" 8.4" 17"

Tripod Head 7" 8.4"

Carrying Case 17" 23" 24"

Hood & Handle 8.4" 17"